

P. O. Box 829  
Carlsbad, New Mexico  
February 27, 1958

MINE INSPECTION REPORT  
JACKPILE MINE  
UNITED NATION AGENCY  
LAGUNA PUEBLO RESERVATION

Confidential Claim Retracted

Authorized by: SC

Date: 6/25/13

by  
C. M. McConnell  
Deputy Regional Mining Supervisor

U. S. DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
CONSERVATION DIVISION - MINING BRANCH

The Jackpile mine located on the Laguna Indian Reservation, New Mexico, under lease to the Anaconda Company, from the Laguna Pueblo Tribe, approved May 7, 1952 was examined, in company with R. S. Fulton, Regional Mining Supervisor and Mr. John Herndon, Mine Superintendent, on February 11, 1958.

As amended November 27, 1956, the lease covers 3,679.09 acres. The last examination for which a report was written was made November 27, 1956.

The production from this lease all comes from open pit mining. The thickness of the overburden in the pit has varied from a few feet to over 200 and the greatest thickness will reach 120 feet in the northeast section. Overburden is removed by diesel and electric shovels and is all hauled from the pit to the waste dump by Euclid trucks.

Recovery of ore from the two ore zones is also by power shovels and truck. Selective mining is practiced in the recovery of the ore and all the ore that shows values of  $U_3O_8$  is saved. Ore of plus 10% is all sent to the mill at Blue Water and ore with values of minus 10% is stock piled in three areas according to the grade. The three stockpiles contain ore of minus .05%, .05% to .075% and .075% to .10%, respectively.

Ore shipped to the mill is also blended to make shipments as uniform as possible. A stockpile of ore of low values, minus .20% is maintained in the pit, and ore from this pile is loaded out to blend with higher grade ore as it is mined. The



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stockpile in the pit is also graded as to lower or higher values between .10% and .20%.

Each truck of rock from the ore zone passes under portable towers where it is probed and sampled. The results of the probing determine where the load should go either to the railroad cars, pit stockpile, either one of the three reserve stockpiles or to the waste dump. The samples from each truck are run and a value of  $U_3O_8$  is maintained for each stockpile.

Ore shipped to the mill is dumped into a hopper that feeds a primary crusher from which it is transported to the railroad cars by a 450 foot long rubber belt. The belt is equipped with a recording counter which records the grade of ore loaded into each railroad car. The recorder is synchronized with the car movement. By knowing the grade of ore in each railroad car a uniform feed can be maintained at the mill.

Overburden in the pit is removed in bench of 40 foot vertical height and from 60 to 80 feet wide. No over hanging high walls were observed. The overburden is drilled by vertical holes from the benches and with auger type power drills. High voltage electric cables are bridged over haulage roads and passageways. All employees are furnished with respirators which are worn when dusty conditions are encountered. Road ways are wet down to minimize dusty conditions.

The ore body is mapped by drilling. Primary drilling is on 100 foot centers. If commercial ore is indicated by sampling during primary drilling removal of overburden is started. Before all the overburden is removed secondary core drilling is done on 50 foot centers and in some instances on 25 foot centers to more closely outline the ore deposit and determine the grade of ore to be uncovered. This method also reduces the cost of drilling.

Areas covered by waste dumps and stockpiles are also thoroughly drilled in order to be sure no commercial ore is covered by waste material.

Stripping of overburden continues three shifts a day, seven days a week. Ore is produced one shift a day except on Saturdays when ore is produced on two shifts, which makes a total of seven producing shifts a week.

All employees except some supervisory and technical personnel are Laguna Indians. Production for the past year has averaged about 80,000 tons of ore a month.

C. M. McConnell  
Deputy Regional Mining Supervisor

Orig. to: Supt., United Pueblo, Albuquerque  
cc: Chief, Mining Branch, USGS, Washington  
: Comm., Office of Indian Affairs  
: Files